

Wolf Print

The UK Wolf Conservation Trust

Issue 42 Spring 2011

- **Compassionate Conservation**

by Camilla Fox

- **Life in the puppy lane**

at
Wolf Park
USA



The Trust's new resident: MOTOMO

■ NEWS ■ EVENTS ■ MEDIA AND ARTS ■ REVIEWS



Wolf Print



Editor
Vicky Allison-Hughes
Tel: 0118 971 3330
Email: education@ukwolf.org

Assistant Editor
Julia Bohanna

Editorial Team
Angela Barrow, Sandra Benson,
Tsa Palmer, Denise Taylor

Published by
The UK Wolf Conservation Trust
Butlers Farm, Beenham, Reading, RG7 5NT
Tel: 0118 971 3330
Fax: 0118 971 0522
Email: ukwct@ukwolf.org

Patrons
Cornelia 'Neil' Hutt
Erich Klinghammer
Desmond Morris
Marco Musiani
Michelle Paver

The UK Wolf Conservation Trust Directors
Nigel Bulmer
Anne Carter
Charles Hicks
Sue Hull
Tsa Palmer

Specialist Advisors
Alistair Bath
Claudio Sillero
Denise Taylor

The UK Wolf Conservation Trust is a company limited by guarantee. Registered in England & Wales. Company No. 3686061.

The opinions expressed in this magazine are not necessarily those of the publishers or The UK Wolf Conservation Trust.

All rights reserved throughout the world. Reproduction in any manner, in whole or in part, in English or other languages, is prohibited. The work may not be photocopied or otherwise produced within the terms of any licence granted by the Copyright Licensing Agency Ltd or the Publishers Licensing Society Ltd.

Aims of the UK Wolf Conservation Trust

- To increase public awareness and knowledge of wild wolves and their place in the ecosystem.
- To provide opportunities for ethological and other research that may improve the lives of wolves both in captivity and in the wild.
- To provide wolf-related education programmes for young people and adults.
- To raise money to help fund wolf-related conservation projects around the world.

Download Wolf Print, including back issues, from www.ukwolf.org

Design and artwork: Business Pluspoint
www.businesspluspoint.co.uk Tel: 0118 988 5530
email: enquiries@businesspluspoint.co.uk

Printed by: Pensord, NP12 2YA. www.pensord.co.uk

Printed on FSC paper from sustainable forest sources. This magazine is fully recyclable. By recycling magazines you can help to reduce waste and add to the millions of tonnes of paper already recycled every year by the UK paper industry. You can recycle paper through your home recycling collection scheme or at your local recycling centre. Visit www.recyclenow.com and enter your postcode to find your nearest site.

First of all, let me take this opportunity to wish you all a Happy New Year. You'll notice that there is a new face introducing Wolf Print this time. My name is Vicky Hughes and I have been involved with the Trust for the last five years and for the last two and a half years as assistant education officer. Last August I took over from Toni Shelborne as education officer at the Trust. This is my first issue of Wolf Print as editor; I've been on the editorial team for the last two and a half years and am relishing the new challenge. I hope you enjoy reading it as much as I've enjoyed putting it together.

The format remains unchanged: there are still articles from around the world, including this time two articles appropriate to the time of year, covering both the breeding season and the hand-rearing of pups at Wolf Park in the United States. The old favourites are still here, including the book and artist reviews under Making Tracks, details of the donations we have made supporting wolf projects, and up-to-date information on what our wolves have been up to with all the details of the new wolf at the Trust!

There are loads of events planned over the next few months including Wolf Keeper Days for children and adults, and lots of Easter holiday fun, as well as special events planned to celebrate all those mums and dads who deserve an extra treat. Included in this issue are the dates for our 2011 open days and a couple of dates to go in your diary for later in the year.

Vicky Allison-Hughes

Education Officer / Wolf Handler / Wolf Print Editor

Cover photo: Motomo, by Joan Paddock



4



6



14



22



27

contents

REGULARS

- 2 Editor's Letter
- 16 Life and Behaviour of Wolves
Breeding Behaviour and Processes
- 20 Making Tracks
Artist and book reviews
- 23 Wolves of the World
- 26 Merchandise
Wolf gifts and souvenirs

NEWS FROM THE TRUST

- 4 Wolf Awareness Week
- 6 Director's Letter, Donations & World Animal Day
- 8 Update on the Trust Wolves

FEATURES

- 10 Wolf Sister: meeting Michelle Paver
Julia Bohanna interviews the award-winning author
- 12 Who's Afraid of the Big Bad Wolf?
Laurel Walker explores the myths surrounding wolves
- 14 Life in the Puppy Lane
Pat Goodmann reports from Wolf Park, USA
- 18 The Mexican Gray Wolf: saving a subspecies
Angela Barrow reports
- 30 Compassionate Conservation
Camilla Fox blogs from a recent conservation symposium

WHAT'S COMING UP

- 31 Special Events at the Trust
Open days, holiday activities, howl nights and more

Wolf News

Wolf Awareness Week

Sunday October 17th saw the most glorious weather for the start of Wolf Awareness Week. The red kites wheeled overhead in the brilliant autumn sunshine and the wolves were howling particularly melodiously.

Slovakia and surrounding countries from Robin Rigg of the Slovak Wildlife Society. It is amazing to think of these places, so close to home, that still hold all those iconic species that once graced our own country. We will probably never see them back here but it means a lot to know that they are still roaming the forests of Eastern Europe thanks to the hard work of people like Robin.

imports of working lines from Italy provided by Janet Atkins were immensely popular and really looked the part. The sheep, courtesy of a local farmer on the other hand were a bit more of a challenge. Repeated attempts failed to get the small flock into the pen and the "bear proof" electric fencing and fladry turned out to be no match for them. After they had broken out for the umpteenth time, smashing one of the posts in the process, it was decided enough was enough whereupon the little flock glared balefully at the dogs and us from the far corner of the field.



Lunca and Latea prepare for a walk

The final event of the day was a real first for this country:

Richard Morley of the Wolves and Humans Foundation, an old Wolf Society colleague of mine, gave a talk and demonstration on the various means of

Undeterred by recalcitrant sheep, Richard gave a very interesting and informative talk on the use of various devices to prevent predation by the wolves. The UKWCT wishes "Wolves and Humans" every luck with its fantastic "White Dog" project and hopes to become more closely involved in the future as this is such a huge and important part of enabling people to live alongside large carnivores; not just wolves, but bears and lynx as well.

The day started with a walk through the fields with Lunca and Latea, our two European females. After an initially slightly spooky start the two girls thoroughly enjoyed themselves. Back in the warmth of the education room, and after a hot drink, everybody settled down to the first of the four talks of the day. This was given by Kirsty Peake and was an update on the Yellowstone packs. Although a little traumatic in parts, this was a fascinating insight into the behaviour of truly wild wolves in a near pristine wilderness, albeit one where a degree of management takes place.

preventing predation by wolves on domestic livestock. This really led to some fun and games! Richard had brought electric fencing and fladry and had arranged for some livestock guarding dogs and sheep as part of the launch of the group's "White Dog project" aimed at promoting the use of canine livestock guardians to prevent wolf predation. The two beautiful Maremma dogs, both

All in all, a really enjoyable day with plenty of interest for everyone.

After Sunday's activities the rest of Wolf Awareness Week continued in the same vein. The main aim was to educate visitors about wolves and some of the many problems the animals face in the wild. We were open for members of the public and Trust members to visit us on the Monday, Tuesday and Wednesday. This set a precedent for the Trust and we received some good feedback from those able to attend.

Following a delicious lunch we were treated to another update, this time on a real favourite of mine, the Ethiopian wolf, by a true expert in the field, Claudio Sillero. There is just something about those wolves and their beautiful environment that makes me melt. One day I really do plan to go out there and see them for myself. I am just so proud that the UKWCT has been able, at least in a small way, to help in their long term survival.

We then learned something about the current situation for large carnivores in



On the Monday we hosted both Robin Riggs from the Slovak Wildlife Society and Richard Morley from Wolves and Humans. Both groups appeared for a second day, jointly talking about the newly launched White Dog Fund and the different methods of livestock protection.

Left: One of the five Maremma livestock guarding dogs that visited the Trust; two on the Sunday and three on the Monday.



Fladry demonstration



Wolf willow sculpture by Caroline Gregson



On the Tuesday Open Day we had willow sculptor Caroline Gregson on site creating a willow wolf for us, which became our newest resident at the Trust. Caroline has enjoyed and been inspired by the

natural world since childhood and now works in willow to create animals and other living forms. The finished wolf can, during the dryer months of the year, be seen standing next to the Remembrance stones for our departed wolf friends.

On the final of the three Open Days we hosted an art workshop run by well known Hampshire-based wildlife artist Jane Pascoe-Absolom. Jane creates beautiful pieces of work featuring magnificent wild animals. A small group worked away all day in our then unfinished drafty pole barn, with the wolves in their enclosures for company and inspiration. Participants only emerged for some warmth and a cup of tea. The group created some fantastic pieces of work based on a photo of a very young Dakota, taken by Monty Sloan from Wolf Park, USA. Monty kindly gave his permission to use the photo from which Jane and the other artists could create their own tributes to our lovely Dakota who we lost to ill health in 2010.

The final three days of the week were taken up with private events so were not included in our activities for Wolf Awareness Week this year.

We would like to thank all those who have supported us in our activities during our first Wolf Awareness Week. We look forward to announcing our plans for 2011 and hope for your continued support.

Sue Hull,
Director

<http://www.carolinegregson.com/>
<http://www.slovakwildlife.org/>
<http://www.wolvesandhumans.org/>

All photos:
Vicky Hughes



Jane Absolom at work on a picture of the young Dakota

Wolf News

Director's Letter

On behalf of all of us (directors, staff and wolves) at the UK Wolf Conservation Trust I would like to thank you for either renewing or taking out membership for 2011. It's good to know that both the Trust's work and information we provide are meaningful to you. You will continue to receive three editions of Wolf Print a year, a colourful publication packed with up-to-date news about our wolves, wolves around the world, diverse opinions, and stories of first-person experiences and encounters with wolves. Additionally, members are entitled to discounted admission on Open Days and Wolf Awareness Week. Through your support you encourage us in our work to advance the survival of wolf populations and also care for the wolves at the Trust.



Alba by Dominic Earl

Our 15th Anniversary Year

2010, our fifteenth anniversary year, saw a year of changes and consolidation at the Trust, both in terms of staff and wolf changes, and improvements on the site. Vicky Hughes has stepped into the role of Wolf Print Editor and Education Officer with great enthusiasm and aplomb. She successfully masterminded and organised our first Wolf Awareness Week in October, which is reported on the previous two pages, as well as designing the exhibits in our new education building. We now have our very own wolf den for children to crawl into and explore; the building will be a wonderful addition to the Trust and will have multiple uses as an exhibition space and as a teaching centre for educational institutions to use whilst visiting the Trust, allowing students to spend more time with us and carry out projects and practical work surrounded by our inspirational environment and animals. It will also be of use when hand-rearing wolf cubs, and for workshops and talks on open days, freeing up the current education room and shop for visitors to see our wide range of merchandise more easily.

Goodbye...

On the wolf front we sadly lost Alba (left)



Dakota by Matt Booth

and Dakota (above) in the early part of the year. These losses were keenly felt by all our members and volunteers; Dakota and Alba were much loved - they both had wonderful and charismatic characters and did invaluable work in the education programme with all our visitors. Then, as the autumn progressed, the balance of the Canadian pack began changing; Mosi's relentless domination of Mai increased to such a level that in order to prevent an injury to one of the three wolves we concluded that we had to separate Mai from Mosi. In the wild Mai would no doubt have left the pack and as a lone female wolf would have hopefully met up with a young male and had a family. Having separated her, we then set about trying to find her a suitable male from a wolf facility in the UK and thus it was that on December 1st Motomo arrived at the Trust as a prospective suitor.



Motomo by Joan Paddick

...and Welcome

After spending the first night alone in the large bottom enclosure we put Mai alongside Motomo in the holding pen to see how they responded to each other. All the signs that Mai and Motomo were giving off were encouraging and we could see Mai was calm and not indifferent to

him so on the third day we put Mai in the large enclosure with Motomo. It's early days as I write this, but indications are that they seem to accept each other and are comfortable in the same enclosure and have been seen playing and running around together. We obviously hope that this "arranged marriage" will not only solve Mai's loneliness but could lead to the birth of cubs. Duma might then be a wonderful surrogate mother to these cubs when they are a few months old - this, however, is all speculation and hope, but it would be a wonderful outcome.

Throughout 2010 I have made a point of visiting and talking to all those places in the UK that keep wolves and it is clear that the number of North American wolves kept in captivity in this country is decreasing as birth control methods are more commonly used than when Roger and I first started keeping wolves in the 1970s. On top of this, most collections are no longer North American wolves but European wolves, as they are indigenous to the UK, and also the more endangered Iberian wolves. So it became apparent that if we wanted to continue to keep North American Wolves we would have to breed some cubs ourselves. This we have done once before when we imported the European wolves Athena, Apollo and Luna from Romania and they produced a litter of cubs including Lunca and Latea and Alba in 1999. The new barn area will make a great space to bring up cubs should they materialise in 2011 or in later years.

Membership of BIAZA

As well as celebrating our 15th anniversary year with the launch of our new website last June, in November we were accepted as an associate member of BIAZA (British & Irish Association of Zoos and Aquariums). BIAZA is the professional body representing the best zoos and aquariums in Britain and Ireland, members of which pride themselves on excellent animal welfare, education and conservation work. ►

Being accepted as an associate member of BIAZA will allow the Trust to move forward knowing we have recognition from a leading professional body for the work we are doing within the fields of education, conservation and animal management. We look forward to working within the BIAZA team in the future.

World Animal Day

In celebration of International World Animal Day, the UK Wolf Conservation Trust held a wet and windy Open Day on Sunday 3rd October. This year we decided to celebrate British wildlife past and present, and considering the weather we had a good turnout of supporters. The Trust, which is usually open to members only, opened its doors to the general public for the last of its 2010 Open Days, as family groups and visitors from all over the UK came to enjoy the day. The wolves as usual were centre stage and the public enjoyed the photography sessions and talks outside the wolf enclosures. As well as the wolves, other animals were on display, such as birds of prey, huskies, and an assortment of British wildlife including bats, hedgehogs, harvest mice, reindeer and otters.

Lots of activities kept everyone busy including archery, nature trails, pond dipping and a howling competition. We had a darts demonstration from world champion Martin 'Wolfie' Adams, a great supporter of the Trust, and a variety of wildlife talks and exhibits. There was storytelling, and a wolf mask competition for the children which was judged by award-winning author Michelle Paver,

who is also a patron of the Trust. Michelle is best known for her book series the Chronicles of Ancient Darkness, which is about a boy's fight for survival alongside his wolf companion.



Reindeer at World Animal Day

You can read an interview with Michelle on page 10.

The weather improved for the last part of the afternoon allowing everyone involved a chance to dry out! Proceeds from this year's event will be going to projects supported by the UK Wolf Conservation Trust which are helping to keep wolves in the wild.

Vicky Hughes



Martin 'Wolfie' Adams giving a demonstration to some young fans

Photos: Joan Paddick

Donations Update

During the final quarter of 2010 the UK Wolf Conservation Trust was able to donate £3000 to the Balkani Wildlife Society, Bulgaria, and £2000 to the Chisty Les Biological Station in Russia. This money will allow these projects to continue with their superb work. With these sums included the Trust, with your help, donated a total of £28500 during 2010 to worldwide projects helping wolves.

The projects that benefited in 2010 were:

- Bulgaria - Balkani Wildlife Society **£5000**
- Croatia - Zagreb Veterinary Institute **£4000**
- Ethiopia - Ethiopian Wolf Project **£5000**
- Greece - Human Dimensions in Wolf Management **£6500**
- Russia - Chisty Les Biological Station **£4000**
- USA - Red Wolf Coalition **£2000**
- USA - Mexican Wolf Fund **£2000**

Thank you all for your support in raising these funds which are vital to help wolves in the wild.



In November we welcomed 18 keepers and staff from Wildwood, The New Forest Wildlife Park, and Isle of Wight Zoo. This was a full day workshop of the care and management of wolves and had great feedback from the staff from these zoos that attended; we intend to invite all those places in the UK who keep wolves to attend a larger workshop this November, thus bringing all those that look after wolves in the UK together to share knowledge and experiences.

New Zoo Licence

West Berkshire Council, who license us under the Dangerous Wild Animals Act to keep the wolves, recognise that the Trust is increasing its amount of visitors from schools, colleges and organisations such as the People's Trust for Endangered Species, Wildlife Trusts, Police Handlers, Battersea Dogs Home and many others.

Accordingly, they would like us in 2011 to move to operating under a Zoo Licence. This makes no difference to our day-to-day running, as we will still only have visitors by appointment. It does mean a lot of paperwork and form filling, and a larger fee for yearly registration, but that is what is required now for us to operate! The freezing temperatures of the last few weeks have made life difficult for Clive Readings our wolf keeper; extra work in thawing out the wolves water buckets and also clearing ice and spreading rock salt around the paths and car parks, as well as keeping the work experience students busy and warm. To Clive and Vicky, as well as Lynn and Donna in the office, and all the many volunteers, I wish to record the thanks from all the Directors for all their hard work. Needless to say the wolves look superb, eating very large quantities of meat, deer, beef and chicken - they are well and truly spoiled!!

I wish all of you a very happy new year and hopefully an exciting year to come here at the Wolf Trust.

Tsa Palmer, Director.

Wolf News

Update on the Trust Wolves

Winter has now well and truly set in; not that the wolves mind - they are in their element in the ice and snow, and certainly look at their best in their magnificent winter coats. They have seen a few changes since the last issue of Wolf Print, including a new addition to the Trust. Read on for more details.



Duma is now in her 13th year, looking well and enjoying life. After battling her way through ill health relating to the breeding season, Duma was spayed last October to prevent any further problems occurring. She had two weeks off work relaxing in her enclosure so that we could be sure of a good recovery, but she was very happy when the two weeks were over and she could start meeting people again. We will continue to watch her closely to ensure she stays in good health. She has been enjoying living in the middle enclosure with the European girls on one side of her and Torak, Mosi and Mai on the other. From this vantage point, she is able to survey the site and keep an eye on what we're all up to. Since our new arrival in December, she now has next door neighbours again. Lunca and Latea will be swapped between the holding area and main enclosure to ensure that they and Duma all get a chance to make use of the larger space. Duma is still enjoying the company of her favourite handlers in her enclosure and, as always, being an outstanding ambassador wolf, meeting people from six years upwards, able

bodied or disabled, giving everyone the opportunity to understand more about her kind.



Lunca and Latea have continued to be busy. They covered the majority of the members' walks during October (while Duma was having some time off) including the walk for the Wolf Awareness Week seminar in October. They continue to delight members who are now getting the opportunity to meet them up close,

and they in turn are relishing the work. With both the girls having been spayed two years ago to reduce the affects of their seasonal hormones, and no male this year for them to fight over, Lunca and Latea will



be stepping up again to help Duma and take on their share of the members' walks during the breeding season whilst the other wolves are off work. Both of the girls have been enjoying the wolf keeper days over the autumn as they have been recipients of a number of novel feeding methods designed to make them think and

feed in a more natural manner. These include the creation of a 'deer', the frame of which is made out of sticks, covered in straw to make a deer shape and stuffed with tasty treats. These take a lot of time and thought to put together and are happily destroyed by the wolves in a matter of seconds! Both girls are again being supportive next door neighbours to Duma and the three have recently started being taken out together for enrichment walks to give Duma the chance to spend some time with other wolves.

The Canadian pack of Mosi,

Mai and Torak have seen the biggest changes since the last edition of Wolf Print. Mosi has kept her higher ranking position and by the end of the summer it was clear that her jealousy towards Mai would see no end and the dominance towards her was becoming more and more aggressive. After initially thinking the behaviour was linked to the start of the hormone rise in the run up to the breeding season, we decided to try Mosi on a course of hormone suppressants to see if it would help, unfortunately this had no effect and it was evident that Mosi saw Mai as a

threat to her position, so was trying to drive her from the pack.

On the evening of the 4th October, Mai was nowhere to be seen. Wolf keeper, Clive Readings, became concerned when she still did not appear for her dinner. He spotted Mosi and Torak on top of the enclosure mound, and they appeared to be

looking into the den that had been dug during the breeding season. After putting the pair safely into the holding area, Clive went into the enclosure to investigate Mai's whereabouts. As he approached the den she could be heard inside but would not come out. Help arrived and it was decided the only thing possible was to dig

Mai out. Digging started and after several shovelfuls of clay had been removed, some earth must have fallen inside the den as a frightened Mai rushed out. She was limping and we could see a wound on her upper thigh which had been inflicted by Mosi or Torak.

Torak and Mosi have settled into life as a pair. Mosi has been keeping close tabs on Mai while she was living next door but the aggression diminished as Mosi realised that Mai was no longer a threat. While Duma was having some time off after her operation, and Mai was recovering from her leg wound, Torak and Mosi took on the weekday walks, meeting college and school students. Torak especially delighted the students by allowing them to meet him and, although he's not as patient as Mai or Duma, and it takes him a few more stops on a walk to meet the whole group, he's still a very impressive wolf. Mosi and Torak will be having some time off during February for the breeding season. Mosi is now much more settled with no competition for Torak's attention.

Mai has been quite content living alongside her former pack mates and over the last few months she has begun to regain some of the confidence she lost through Mosi's dominance. Like Duma, she loves every bit of human company that she can get and she thrilled two weekday groups in late November when she decided to stop and howl on



Eventually, Mai allowed a collar and lead to be put on and she was walked onto the yard of the kennel block so her wound could be inspected. It was decided by the vet that the wound would heal without intervention. Mosi and Torak were let back into the main enclosure and

the walk, only pausing long enough to greet each new person. In early December Mai was moved down to the bottom enclosure with the pond as we had managed to find her a mate, Motomo.



Mai was put in the holding area to allow her to recover. Mosi appeared satisfied that she had driven Mai from the pack and settled down with Torak. If we had tried to reintroduce Mai there would have been the possibility of even more aggression from Mosi, and maybe even the loss of a wolf. For reasons of his own, Torak has chosen Mosi and shows no interest at all in Mai. The three were moved to the top enclosure with Mai living in the holding area and Mosi and Torak in the main area. So, we ended up with a second lone wolf and as Mai is only four years old, it would be a long and lonely life for her so the decision was made to find her a mate of her own.

Motomo arrived at the Trust on Wednesday 1st December from Combe Martin Wildlife Park. He is a North American-type wolf and was born on 19th May 2008. His parents are Cheyenne, who originates from the line of Howletts Canadian wolves, and Yana whose descendants are thought to have come from Longleat Safari Park. In the Native American language, Motomo means "he who goes first"; quite appropriate as he is the first of his litter to leave Combe Martin. Motomo is an unsocialised wolf so will not be carrying out the same work as the other wolves at the Trust; he is purely here to keep Mai company. We look forward to getting to know Motomo and watching how his relationship with Mai develops, so far all seems to be going well between the pair; they have been spending more and more time together, walking round their enclosure side by side



and even playing. Mai is certainly appreciating the company and Motomo is benefiting from Mai's confidence around people and is settling in well.

Vicky Hughes

All photos Vicky Hughes except Latea, by Pete Morgan-Lucas



Mai



Wolf Sister: meeting Michelle Paver

At one of Michelle Paver's writing workshops for children at the UKWCT in October last year, Julia Bohanna was able to chat to Michelle about her Chronicles of Ancient Darkness series. The timing was fortuitous: she had just been awarded The Guardian Children's Fiction Prize for Ghosthunter, the last book in the series, and which Julia had reviewed in an earlier edition of Wolf Print.



Ghost Hunter, and the other books in the Chronicles of Ancient Darkness Series are available from the UK Wolf Conservation Trust at www.ukwolf.org

Modest as ever about her considerable accomplishments, Michelle Paver talked about the origins of the Chronicles of Darkness series initially as a simple concept. Appropriately enough for novels set in pre-history, where language would have been more straightforward, more basic, she began with just five words that encapsulated a world: *Boy. Wolf. Girl. Bear. Forest.* But those who have followed the adventures and tribulations of Torak and friends will know that their journey developed into a rich and complex one.

So how did Michelle first become involved with the UK Wolf Conservation Trust?

The book *Wolf Brother* came first; it was during a publicity drive for it that she sought out the Trust for some photographs of herself with the wolves.

What did the visit mean to her?

She describes the experience as 'Completely magical.' She even got to keep some of the wolves' fur. Her eyes light up at the memory - getting close to Duma and Dakota was 'an enchantment.'

Of course, that first meeting led to a long association with the Trust and ultimately Michelle becoming a patron. But when new cubs arrived in Beenham, it seemed fitting to name one of them Torak. Michelle remembers bottle-feeding the young male cub, with one hand under his tiny belly. What many people may not know is that when one of his sister cubs, Mika, sadly died, Michelle created Shadow in *Ghosthunter* as a memorial to her.

So which other writers and classic books have inspired Michelle's work? And why wolves?

She can remember asking for a wolf aged ten - but like many children asking for inappropriate pets in a city - not getting one. She was already greatly influenced by Kipling's *The Jungle Book* but also later by Jack London's *White Fang* and *The Call of the Wild*. Wolves, of course, are centre stage in all of these novels, so it's not surprising that any young reader might become besotted. Also in the mix was an Oxford contemporary of C S Lewis and Tolkien: Roger Lancelyn Green, who wrote about such things as Norse legends and King Arthur. Add in an interest in American Indian tales and these varied mythic influences were to greatly shape the Chronicles of Ancient Darkness.

So what kind of writer is Michelle?

It may surprise many, when most of us succumb to being junkies of technology, that Michelle prefers to pen her initial drafts in longhand. 'It feels freer,' she admits. She is

then meticulous about rewriting ('The hardest part.') She edits for pace, making every word work for its supper. Writing takes up to six hours a day; some days are more productive than others. As for research, Michelle does not dip into Wikipedia when she wants facts for her books. She isn't even a fan of email. She prefers her research to be authentic and something she has preferably experienced firsthand - usually by travelling to places that approximate the places she creates. These places have included the wild cold expanses of Scandinavia, Finland, Greenland and Northern Canada; places where encounters with bears and the feeling of fear have all been part of the experience. The geography, however, is often only the starting point, as she alters the topography to suit the story. Research is always a means to an end - the story is the important thing.

The devil is truly in the detail - no senses are neglected in any books in the series. In her children's writing workshop, artefacts were passed around the room that might easily have been part of Torak's world: an exquisitely crafted glove made of reindeer skin that had a strong musty aroma of the creature it once was, a stone age axe that had become smooth and weathered to the touch by hunter-gather hands, a reindeer antler. These are more than keepsakes. It is very important to her not to neglect any of the senses when she writes - so her world is a visceral one. She breathes it as she writes.

On her research trips she has previously spoken about learning to carry fire in smouldering fungus rolled in birch bark. She is also not shy about trying foods that Torak might have experienced: seal meat (including raw liver) and spruce resin, the latter of which is a type of Stone Age medicinal chewing gum. It is the equivalent of an actor absorbing themselves in a role they are about to play; a type of literary method acting.

Although there is a blend of the fantastic and the very real in Michelle's work, she is always concerned with accuracy. For example, the phases of the moon have to tie up and be consistent, wolves have to be the right age to be sexually mature and have cubs. There are to be no continuity 'bloopers.'

If Michelle goes the distance (quite literally) to create a sensually authentic world that she is passionate about protecting, she then has to be strong when sent letters from fans who may have their own ideas about how the stories unfold. Many writers of well-known and loved characters often have to face this dilemma. After all, Arthur Conan



Doyle tired of Sherlock Holmes and murdered him at Reichenbach Falls, but did reluctantly succumb to public pressure to resurrect the famous detective. Michelle is determined and disciplined about her work. Her fictional characters may initially begin their lives containing elements of real people - she admitted that Wolf had some personality traits shared by her own sister - however, in that peculiar and mercurial magic so often documented by novelists, the characters often develop their own lives and sometimes even dictate their futures to their creators. This was certainly true of Renn, and Michelle had to redo the plot of *Spirit Walker* to reflect it.

Favourite character?

Michelle will admit that Wolf is her favourite character and that she might chose Raven as her own clan with their 'Moderate attitude to ceremony and religion.' Also, that there is more than a little of herself in Torak.

And the successful route to publishing?

There is no fast track way of course but good advice from Michelle would be that despite possible rejection, 'You have to pick yourself up.' Also, that 'I never think of the audience when I am working.' Clearly, writers should write for the love of it in the first instance and the passion will show in the work.

Newest project?

A book for adults - *Dark Matter*, an Arctic ghost story set in the 1930s. Published by Orion.

In conclusion, it is clear that Michelle is a dedicated writer, passionate about wolves, but also a refreshing intellect. She also speaks for the compulsion of all true authors when she states that: 'You are miserable when you are not writing...so you just keep writing.' For all her fans, long may this continue.

Michelle's website: www.michellepaver.com

Julia Bohanna

Who's afraid of the Big Bad Wolf?



'The Wolf doth something every week that keeps him from the church on Sunday.'

Old English Proverb

For centuries, the wolf has been despised as a creature of evil, a stealer of children, and a despoiler of the battlefield dead. Why? Laura Walker investigates.

In the Bible, Jesus described himself as a shepherd, protecting his flock from the wolf. T.H White's collection of 12th century Latin stories, *The Book of Beasts*, asked us: 'What can we mean by the Wolf but the Devil?' and Lord Byron wrote of an enemy 'coming down like a wolf in the fold.'

But nearly 50,000 years ago, according to many zoologists, the wolf was the first creature to be domesticated by our ancestors. We brought them into the warmth of our fires, fed them, trained them to hunt for us and serve us. We bred them to take many forms for our different purposes; to guard our homes and family, to help us find food, and, eventually, to hunt and kill the very creature we first admired enough to take from the wild - the wolf itself.

It began when we first started farming food and keeping livestock. Suddenly, the wolf was no longer a symbol of birth and death, a proud hunter to be admired and respected, it was a threat to our animals - a killer. So we began to hunt, and conceived ever more vicious ways of killing them.

the entire month of January was devoted to the wolves' slaughter

Wolves were shot, trapped, poisoned, burned and bludgeoned. They were captured, infected with mange, and sent out into the wild to pass on the disease before dying. They had their jaws wired so they could not eat, to die a lingering death by starvation. They were blown to bits by guns; pups were dragged from their dens and slaughtered in cold blood. Strychnine sulphate was injected into carcasses of every type, killing off millions of the poor creatures as they came to scavenge.

In Anglo-Saxon England, the entire month of January was devoted to the wolves' slaughter, and was known as Wolfmonat, the Wolf Month. In France, Charlemagne created an order for the killing of wolves,

named the *louveterie*, in which specialised hunters tracked down wolves in return for exemption from military duties. King Edgar of England demanded a payment of three hundred wolf skins a year from the king of Wales, and the ruler of Scotland offered an ox for any man who could kill one of them.

And so the bloody trail of slaughter went down through the centuries, never abating or showing mercy, relentless in its cruelty. 136 wolves were killed in Yellowstone between 1914 and 1926; at least eighty of these were only pups. The last Texan grey wolf (*Canis Lupus Monstrabilis*) was killed in 1942; in 1943 the last wolves in Wyoming and Colorado disappeared for good. The Mexican wolf (*Canis lupus baileyi*) made its last stand in the 1970s, and the last of the grey wolves (*Canis Lupus*) disappeared from Texas in 1970, from Arizona around 1975, and from New Mexico, 1976.

As for the UK, the last wolf in Scotland is said to have been killed in 1743, by the hand of a hunter named Macqueen. The wolf was said to be pitch black, and had apparently killed two children crossing the hills with their mothers. Naturally, Macqueen was supposedly a man of fearsome strength and stature, and of course, he kept the 'best deer hounds in the country.' He apparently decapitated the creature, for fear it 'might come alive again, for they are precarious creatures!' Yes, and gold rained down from the heavens that night, along with leprechauns. This story was dubbed 'history' by the man who published it in Victorian times, and if there's any truth in that tale, I'll fight the wolf myself.

But why? Part of it is surely that we feared the wolf was a threat to our livestock, and that we believed it was depleting the herds of deer we wanted to hunt ourselves. But still, how did such a relatively shy, gentle creature acquire such a reputation as a fearsome man eater? Not even much more vicious predators, such as bears or lynx have such a history of fear around them. For, despite all the rumours of man-eating wolves over the years, only in a very few cases have the attackers been pure, healthy wolves. Most of the reported attackers are either suffering from rabies or a similar disease, or are being fed by humans nearby. A great many of the wolves said to be attacking humans are not pure wolves, they are wolf dog hybrids, which can be much more vicious given the combination of a bigger, heavier predator that has lost its fear of man. Over the years, there have been very few unprovoked wolf attacks. But the legend of

the wolf as a merciless killer continues, fed perhaps by the myth of the werewolf. This was more than a wolf; it was a man

a man who changed at the full moon into a ravening beast.

who changed at the full moon into a ravening beast. The first werewolf sighting was in Germany in 1591, in the woods nearby the town of Bedburg, which was the site of numerous savage murders, so horrifying and brutal that they were deemed too vicious to be the work of any mortal.

The locals of Bedburg cornered the culprit one night, seeing it to be a huge, wolf-like creature. But then, under closer inspection, it reared on its hind legs and was found to be a local farmer, Peter Stubbes. After being tortured on the rack, he confessed to practising black magic since he was twelve years old, and said that the Devil had given him a wolf skin belt. When he put it on, he claimed to be able to transform into 'the likeness of a greedy, devouring wolf, strong and mighty, with eyes great and large, which in the night sparkled like fire, a mouth great and wide, with most sharp and cruel teeth, a huge body, and mighty paws.'

He confessed that, in this guise, he had murdered fourteen children, including his own son, and two pregnant women. His execution is one of the most brutal known, he was subjected to various tortures before being decapitated, along with his daughters and mistress. His severed head was placed upon a pole with a figure of a wolf upon it, as a warning to any who would follow in his footsteps.

So, perhaps the answer to why humans feel such fear of wolves is there. Perhaps it was not just the decline of caribou and deer that worried us, maybe we sought our own ghost stories, and were horrified at what we found. Perhaps, upon seeing such violence and savagery among our own, we strove to free ourselves from it. Perhaps wolves were merely the scapegoat for humanity's own cruelty.

Laura Walker

Laura Walker was born in Liverpool and now lives on the south west coast of Scotland, where she also writes poetry and fiction as well as articles. She is a keen animal lover who enjoys studying the natural environment. She currently lives with a springer spaniel, a rabbit and a chipmunk, and raises funds for animal charities in her spare time.

Life in the Puppy Lane



WOLF PUPS Tilly, Gordon, Dharma and Devra arrived at Wolf Park, USA, on 10th May 2010. Pat Goodmann, senior wolf handler and the Park's primary behavioural researcher, charts the challenges and fun, joys and sorrows of the pups' first summer.

LIFE DURING SUMMER 2010

Largely revolved around the pups, who arrived at Wolf Park on May 10th, along with Kathryn Lord and Nathan Hall (and Monty helping with the transport). The pup-raising crew this year came from our research group out of the University of Florida, plus Katherine who helped raise pups for us in 2005 as part of her doctoral research. The 14-day-old pups were nursing from bottles, but little Devra, the runt of the litter, was not terribly interested in a bottle. Katherine and Nathan had to use many skills to persuade Devra to nurse, but once she started she nursed voraciously until reaching her wee maximum capacity. Tilly, the largest of the four from the start, easily maintained her status as the largest pup all summer.

They quickly grew larger, including little Devra. The researchers documented milestones in the pups' development and did some cognitive testing, which they tried to make fun and enriching for their young wolves. The pups met many people, both male and female staff, volunteers and

sponsors, and some adult wolves. Kailani and Ruedi were first to meet the pups. Kailani turned into a boneless heap of happiness - until the pups tried to mount her. At that point she proved that even with little pups she'd stare and growl if they behaved inappropriately. Ruedi concentrated a lot more than Kailani did on teaching the pups that 'no means no' the moment he set paw into the nursery. But despite his growls and hasty evasions when they tried to swarm him, he repeatedly refused to leave when we, thinking he might be overwhelmed, offered him chances to exit.

At one point he lay down in the pups' kiddie pool; Gordon climbed in and tried to curl around Ruedi's head in what looked like an affectionate embrace.

Our pups were exposed to many thunderstorms, as is typical in Indiana's early summer. They did not seem fazed by the storms at all, but one carried so much threat of tornadoes that we scooped up the pups and took them to the office basement. There they could be entertained while the storm passed

through. We piled up blankets for them and got some of their toys. For a while they were entertained just by being carried around and shown what was on the shelves, out of reach. With all the excitement the pups began acting like overly-tired toddlers: pestering each other, losing their tempers, etc. We had to fall back on age old methods to get them to calm down and nap - we rocked them and sang to them. Yes, the puppies had a 'play list'. The familiar tunes helped mask other noises that might frighten them. Their play list included the theme song from 'The Pink Panther'. Eventually, the storm passed, the sun made a curtain call for sunset, and we took the pups back to their outdoor nursery.

As the pups grew, they graduated from liquid formula to zoo chow, dead mice and rabbits, then finally chunks of deer. Mice were initially more exciting than zoo chow. Then mice were eclipsed by bunnies, but bunnies paled in comparison to deer pieces.

Devra, who challenged her foster parents' ingenuity to get her nursing from a bottle, become very enthusiastic about food during weaning. She was born to be a

With all the excitement the pups began acting like overly-tired toddlers

carnivore, and started growing fast. Despite this growth, she remained significantly behind in physical development compared to her siblings. Unfortunately, she was doomed by a congenital abnormality involving a lack of blood vessels to her liver. We had concerns about Devra's health, but we did not know something was seriously wrong until she collapsed and died suddenly on June 21. It was a shock to all of us; she had seemed to feel particularly well the night before, playing as if there were no tomorrow.

Through it was hard to come to terms with Devra's death; life went on for the rest of the pups. They continued leash lessons. Their first lessons were in an area where there was long grass and weeds. This restricted how fast the pups ran, minimising the risk of the pup suddenly taking off and being jerked to a stop when it reached the end of the leash. By helping restrict the pups' movements, the long grass helped the pups adjust to restraint. When the pups were used to the leashes they were taken outside the enclosure and allowed to explore more widely. At first we did this with each pup individually, but by the end of the summer they had also gone on a lot of group walks. Having the other pups along seemed to give each of them confidence to walk by things that one pup might retreat from if he were walked individually.

his face lost much of its worried look and he followed the pups around.

Walks were also an occasion for them to get better acquainted with Wotan through a protective barrier. He made it apparent that he is not a 'kid person' when it comes to small puppies; he considers them to have 'cooties'. But as he sniffed them, walked along the fence beside them as they travelled along his fence, we could see he was getting more accustomed to being with them. When he was finally introduced to them we put the pups and Kailani, Wolfgang, Ruedi, and Wotan in a large natural enclosure at East Lake. Wolfgang and Ruedi regurgitated 'hot lunch' for the pups - who were too excited to stop and eat it. Wotan growled and showed his teeth repeatedly but the pups respected his rules and were soon waiting for the 'okay' to touch him. Twenty-two minutes into his first pup visit Wotan's tail began to wag, his face lost much of its worried look, and he followed the pups around. He still liked it best if they did not turn around and try to swarm him.

Now we are on the point of bidding goodbye to Tilly and Gordon. Seeing them go to their new homes is heart-wrenching, but at least we can visit Tilly sometimes in Illinois. We still keep in touch with Thali, Marius, and Marlin, born here and living at Scovill Children's Zoo since the summer of 1997. We value our friendship with the humans at Scovill, and trust that we will also establish friendships with the



ZooMontana people. Gordon is joining his sister from his parent's 2009 litter there.

NOTE: As of 1st October both pups had travelled safely to their new homes.

Pat Goodmann
www.wolfpark.org

Wolf Park is a non-profit organisation dedicated to education and behavioural research which benefits wolves and their canid relatives. The Park maintains free-living ambassador animals in mixed habitats, provides public educational programs and in-depth seminars, hosts researchers from many institutions to conduct behavioural and cognitive research with the wolves, and advocates for the species and for conservation. Wolf Park offers internships and practicums to interested students of wolf behaviour.



It's a tough life being a wolf pup!

*All photos by
 Monty Sloan
 Wolf Park USA*



Life and behaviour of wolves:

breeding behaviour and processes

Pete Haswell

All organisms have the desire to breed and pass on their genes to the next generation; it is the ultimate means of ensuring survival.

REPRODUCTIVE TIMING

Female wolves usually become sexually active in their second year, although in captivity this can be seen at a younger age. Males usually become fertile by the age of 22 months. In captivity, breeding has been documented as early as nine to ten months, the earliest documented wild breeding is two years. Wild wolves may not breed until four or five years of age. This reproductive capacity still puts them ahead of the grizzly bear which does not breed until eight years old. This may be due to factors such as an inability to care for pups due to underdeveloped hunting expertise and parental skills learnt from older pack members. Wild wolves need to wait until vacant territory is available with ample resources and suitable environmental conditions. This may take time in saturated wolf populations, thereby prolonging the age of breeding.

During autumn hormone levels begin to rise, preparing the body for the reproductive cycles to follow. Female wolves come into oestrus once per year in late winter. This period lasts roughly five to seven days, the female being most receptive in the latter half. Breeding females will usually come into oestrus

before other females in the pack, ensuring male interest, whilst suppressing reproductive cycles in other females through physical and mental harassment. Established pairs tend to scent-mark more frequently during this period with newly-formed pairs marking most often.

Wolves mate anytime between January and April with late February to early March being most common for North American wolves. Wolf populations in southern portions of their range tend to breed earlier than those further north. Records exist of Arizona wolves breeding in December and Abyssinian wolves anytime from August to December.

COURTSHIP

In late winter a pair may begin to court, forming a strong bond.

The process is affectionate. Wolves will approach one another whilst quietly whining. Noses touch, muzzles are mouthed, bodies bump, mutual grooming and nibbling of coats ensues whilst the pair become acquainted, often walking closely and even sleeping side by side. Courting pairs will follow each other closely two months prior to oestrus. This early courtship phase is known as the pre pro-oestrus.

After time, males will begin to smell the female genital area, investigating for traces of sex hormones. If she is not sexually receptive, the male is declined with growls and snaps of the jaws. During the pro-oestrus period females undergo physiological

changes preparing the body for breeding. Courting behaviour becomes more frequent and levels of female sex hormone oestrogen increase. Males are receptive to these changes. When the female is in oestrus, ready to breed, copulation will occur.

COPULATION

Females give visual and olfactory cues to indicate receptivity.

She will avert her tail to the side (flagging), standing still when the male mounts. An inattentive male is encouraged by the female pawing, rubbing and even mounting him. The physical act occurs with the male mounting from the rear. A copulatory tie results after male ejaculation due to swelling of the males' penile bulb gland and muscular tightening of the females' vaginal tract. This literally ties the wolves together. This tie aims to ensure successful fertilisation, increasing successful passage of sperm and ensuring a lack of competition from other males by preventing further copulation. During attachment wolves often turn to face end to end, ensuring protection from potential intruders during this vulnerable



time. Ties last from five to 36 minutes. Wolf copulatory ties more readily separate than those of domestic dogs, offering obvious survival advantage should danger present itself. Wolves may copulate between one and eleven times during oestrus.

Unfortunately for romantics among us, myths of wolves mating for life are untrue. Lasting attachments are formed but widowed wolves are known to breed with another. Some males bond with different females in different years. Potentially this could occur due to lack of previous breeding success.

PREPARATION FOR PUP BIRTH

After copulation metestrus occurs whether the female falls pregnant or not.

This period prepares the female for pup rearing. Physical changes such as the growth of mammary tissue and loss of belly hair, along with behaviours such as den construction, are elicited by the metestrus phase. Females failing to become pregnant sometimes express this in "pseudo-pregnancies".

Preparation for pup care may begin well before birth. Dens may be dug as early as autumn. All pack members participate in den digging and provisioning for the pregnant female. Den locations vary depending on availability but are rarely near peripheral territory areas where conflicts are likely. Most natal dens are near water and elevated to allow detection of danger. Dens may be found in crevices, caves and under trees, to name but a few. Dens are not lined with any material. Birthing chambers are normally located at the end of a tunnel up to 15 feet long, often being slightly elevated above the rest of the tunnel. The chamber is approximately 3 feet in diameter and 2 feet high. Females often localise near a den site for a month prior to birth. All pack members protect the den site, the adult male being particularly protective.

Just prior to birth and for a few days after, the female will be alone in the den. Gestation in wolves, similarly to dogs, lasts 60-63 days. Pups are born in early spring (late April/

early May), which coincides with birth pulses of herbivores providing a means to cater for their nutritional needs. Again variances can be seen to coincide with alternative breeding patterns of wolves in different environments. Pups are born after the worst of winter and are almost completely physically developed by the time winter comes again.

Wolf litter sizes average five or six pups but range from one to 11. In areas with high mortality rates or larger prey biomass available per wolf, litter sizes tend to be higher.

FACTORS AFFECTING BREEDING

Most wolf packs comprise pups (largest proportion), yearlings from previous breeding, and the parent pair.

Packs may include one or more two- to three-year-olds. Usually, all young are offspring of the breeding pair. Some packs contain a post-reproductive female (old breeding female succeeded by a daughter) or wolf adopted from another pack. Male/female pack composition tends to be even.

Adult wolf mortality peaks during late autumn and winter; also the most major times of dispersal. During this period young adults may leave their pack to find a mate and form their own. Winter hormonal changes preparing for the breeding season stimulate dispersal behaviour. Males are much more likely to fight during this period.

In most situations the parent or Alpha pair mate. Occasionally subordinate breeding or multiple pack pair mating occurs. Multiple litters are more common than initially thought. These situations are seen as a response to severe winters when prey becomes vulnerable creating a more readily available food source. Periodic disturbance or culling of wolf populations can lead to a temporary increase in numbers. Wolf reproduction rates react accordingly to factors in their environment. Subordinate females may successfully mate after pack

hierarchy has been disturbed.

Non-reproductive pack members provide indirect pup care for many reasons. At the present time it may be the best course of action to promote the genes which they share with their kin. Their actions reinforce social bonds enhancing survival and juveniles gain valuable experience for when they eventually breed themselves. Issues relating to co-parental care are complex and many hypotheses are untested.

Inbreeding has been observed in wolves both wild and captive. The degree to which this is harmful is not clear. Populations can suffer from inbreeding depression and negative physical effects. Isle Royale (Michigan, USA) wolves show a high degree of inbreeding due to their inability to migrate. This population are suspected to suffer from reproductive failure, population decline, decreased genetic diversity, physical abnormalities and decreased longevity.

Inbreeding occurs due to a lack of choice; similarly, when lacking potential mates, wolves are known to settle for domestic dogs. In most wild situations the opportunity for input of new genetic material is high enough to prevent inbreeding. Social processes causing dispersal and prevention of inter-pack breeding are pivotal.

Factors such as dispersal through connected habitat areas (containing genetically diverse populations), availability of suitable mates and habitat in which to raise young, impact upon breeding processes and thus population viability. To maintain stable and suitable wolf breeding processes, factors determining them must be preserved.

Pete Haswell, BSc Hons Environmental Science (Biodiversity and Conservation).

Pete is currently assisting with educational work at the Trust and is collaborating with Josip Kusak on a project the UKWCT supports. Pete hopes to soon begin a doctorate of biology.





The Mexican Gray Wolf:

Saving a Subspecies

While the wolf remains for many a symbol of the wild, human development and land-use conflicts in the western United States have pushed wolves to the edge of extinction, reports Mexican Wolf Fund project manager Erin Hunt.

Few species are as polarising as the wolf. Wolves inspire a broad range of emotions, from admiration and adoration to intense fear and even hatred. While the wolf remains for many a symbol of the wild, human development and land-use conflicts often threaten the survival of this keystone species, particularly in the western United States where a long history of predator eradication programs have pushed wolves to the edge of extinction.

As settlers colonised the western United States, they feared that wolves and other predators would threaten their livestock and families. In response, the US government implemented a predator eradication program that began as early as 1630 but became widespread in the mid-1800s. Wolves, bears, mountain lions, coyotes and other predators were shot, trapped, and poisoned to reduce their numbers or even eliminate them from certain areas where they were deemed a threat to human activities.

The eradication program effectively reduced wolf numbers from the hundreds of thousands to a few hundred in the continental US, and wolves were extirpated from a majority of their former range. Perhaps most significantly, this policy ignored the benefits that these top predators provided in the ecosystems in which they were found.

It was decades later that scientists realised the long-term, ecosystem-wide effects that removing a top predator like the wolf can have. These effects range from overpopulation of ungulates (animals such as deer and elk that can overgraze plant

life in an area, affecting forest health, soil erosion, and water quality in riparian zones), to overpopulation of coyotes (which compete with wolves for territory and whose numbers explode when wolves are removed from an area), to decreases in biodiversity (including a drop in the number and variety of plants, songbirds, and small mammals in areas where wolves have been removed). Because wolves are selective predators, they keep their prey populations healthier overall and help prevent both overgrazing and massive die-outs due to disease and starvation when a population gets too large. Wolves keep coyote populations in check, which benefits foxes, badgers and martins that compete with coyotes for prey and whose populations dwindle if coyote populations are too large. Wolves also put food on the ground for other species, such as bears, birds of prey, ravens, magpies, coyotes, wolverines and other scavengers, so many species benefit from their presence in an ecosystem.

The realisation that wolves play critical roles in an ecosystem prompted reintroduction efforts in Yellowstone National Park and Idaho in the US in 1995. Since then, the wolf population in the Northern Rockies in the US has thrived, and Yellowstone National Park has become a living laboratory demonstrating the dramatic effect that wolves have on the plants and animals around them. While this reintroduction effort was controversial, and while the US government and court systems are still trying to determine the ultimate fate of wolves in the western US, most would call the Yellowstone reintroduction a

resounding success as wolf numbers continue to increase.

IN CONTRAST, THE HISTORY OF THE MEXICAN GRAY WOLF REPRESENTS A CASE STUDY IN SOME OF THE CHALLENGES FACING ENDANGERED SPECIES RECOVERY EFFORTS.

As a result of the same predator eradication programs that nearly wiped out other subspecies of gray wolf, the Mexican wolf, a highly-endangered subspecies of gray wolf, was completely extirpated from its former range in the US by 1970 and in Mexico by 1980. Once roaming from Arizona, New Mexico and western Texas in the United States down to Mexico City in Mexico, the Mexican gray wolf could no longer play its part in the ecosystems of the Southwest as the only remaining members of the subspecies were moved to captive facilities to prevent extinction. In 1976, the Mexican gray wolf was officially listed on the US Endangered Species List and a recovery plan was developed from 1977 to 1982. This recovery plan included using carefully managed captive stock to replenish the wild population that had been wiped out.

From a captive founding population of seven unrelated individuals, the Mexican wolf population was rebuilt in captivity. This captive population is now being used in a reintroduction effort in Arizona and New Mexico. Reintroductions began in 1998 and continue today, but the wild population still faces many challenges to its long-term survival.

While captive breeding efforts have been extremely successful, the total population

of Mexican wolves only numbers about 350 animals. Of that, only about 42 Mexican gray wolves are found in the wild in Arizona and New Mexico in an area called the Blue Range Wolf Recovery Area.

THE MEXICAN GRAY WOLF IS CONSIDERED ONE OF THE RAREST LAND MAMMALS IN THE WORLD and the small size of the population means that this subspecies already faces an uphill battle to reach recovery goals. This battle is complicated by the complex socio-economic atmosphere in which wolf recovery takes place.

Even though the Mexican gray wolf is protected by the US Endangered Species Act, human-caused mortality is still the number one cause of death for Mexican wolves in the wild. Wolves are sometimes illegally shot (including three during the summer of 2010 alone), and some wolves are also removed from the wild for management reasons (primarily due to depredation on livestock or for travelling outside the designated wolf recovery area).

Encounters with human activities, including livestock grazing, can reduce wolves' life expectancies because wildlife managers must often resort to lethal control measures, or at best remove the animals from the wild and return them to a captive facility. In the Mexican wolf reintroduction program's early years, the number of wolves that were removed from the wild was in the low single digits. Unfortunately, this changed in the mid-2000s as more wolves were released and those already in the wild reproduced. Under a long-standing management protocol, called "Standard Operating Procedure 13.0" (SOP 13), if a wolf (or a member of a pack) killed cattle or other livestock, that wolf, or possibly its entire pack, was given only "three strikes" in a 365-day period before lethal control options would be implemented.

When SOP 13 was finalised in 2005, the number of Mexican wolves annually removed from the wild increased to double digits. In 2007 alone, 19 wolves were removed from New Mexico's Gila Wilderness for livestock depredations. The Mexican wolf captive breeding program is drawn from the three sole genetic lineages existing when the program began: Aragon, Ghost Ranch and McBride. Because of the finite genetic pool of the breeding

population of Mexican wolves in the Recovery Project, removal of even one wolf may have consequences for the viability of the entire population. With SOP 13, the recovery program reached an impasse, as wolves were being removed from the wild faster than they could reproduce on their own and faster than they were being reintroduced from captivity.



Annual health check at the California Wolf Center

WITH THE POPULATION DWINDLING BELOW RECOVERY GOALS, this situation required a paradigm shift in how the Mexican wolf was managed in the wild. On the one hand, wildlife managers began to focus on proactively preventing conflicts that might require the lethal control or permanent removal of wolves, rather than responding to the conflicts reactively after they had occurred. On the other hand, managers realised that, with such a small population, all efforts must be made to allow genetically valuable wolves to remain in the wild to avoid any negative effects of removing animals from the already small breeding population.

During 2008, wildlife managers did not remove wolves for depredations. This drastic reduction in depredation-related removals can be partially correlated with increased proactive measures in part funded by the Mexican Wolf Fund, a non-profit organisation dedicated to reducing conflicts and keeping wolves alive on the ground. The empowerment of wildlife managers and ranchers to implement non-lethal techniques cannot be overstated as a critical component to the future of Mexican wolf recovery.

Livestock is allowed to graze year-round throughout much of the Blue Range Wolf Recovery Area, so the potential for conflict is almost always there. To ensure that reintroduced wolves, whatever their experience level, have the opportunity to live, reproduce, raise their litters, and thus contribute to their species' long term survival, it is necessary to help them avoid

conflicts with humans, pets and livestock while they adapt to their new environment and live in their natural territories. The potential for conflict can be minimised or even eliminated through the use of proactive, non-lethal techniques such as range riders, predator-proof fencing, fladry, Radio-Activated Guard (RAG) boxes, and proactive livestock management techniques such as consolidated calving and grazing, and the use of livestock guardian dogs. These last strategies are particularly important because they signal a shift toward managing livestock around wolves, rather than attempting to manage wolves around livestock.

Along with the shift toward proactive management, the restoration of oversight to the US Fish and Wildlife Service in a landmark November 2009 lawsuit settlement was accompanied by a dismantling of the wolf control

protocol, SOP 13. While lethal control still remains an option as a management tool after non-lethal alternatives have been exhausted, the automatic "three strikes" cut-off policy no longer exists as an impediment to leaving wolves in the wild. As a result, the need for funding to implement non-lethal, proactive efforts has been elevated to even greater importance. But this leaves hope for the future that the Mexican wolf can be saved if it is managed in a way that allows wolves to be wolves.

Erin Hunt, Project Manager,
Mexican Wolf Fund.

All photos:
Tony Shelfo, California Wolf Center





Making Tracks

wolves in the media and the arts

THE WOLF'S TOOTH

Keystone Predators, Trophic Cascades and Biodiversity

By Cristina Eisenberg

Hardback, 272pp, 23.1 x 15.2cm, RRP £21.00
ISBN 978-1-59726-397-9

THE WOLF'S TOOTH describes to the reader why wolves are part of the ecosystem and the impact of their removal. It contains some detailed scientific descriptive paragraphs and findings, but is none the less a fascinating book.

Cristina is a conservation biologist at Oregon State University and this book began as her master's thesis. It opens by describing an occasion whilst she was completing research on a privately-owned ranch in North West Colorado and the whispered discussions that took place when wolf cubs were found in the area. 'Visitors from the North' is how the wolves were referred to, possibly migrating from Yellowstone. Although wolves are living in the North West of America, the hatred for the species is never far away.

For many years, ecologists have believed that predator and prey relationships are responsible for 'trophic cascades'. ('Trophic' - food related, 'cascade' - the movement of energy through the food chain caused by predator arrival and departure). Remove a top predator and prey increases, but the prey causes damage to their own habitat and they

literally eat themselves out of their environment, thus unbalancing 'the web of life'. Therefore, the relationship between predator/prey/vegetation is crucial.

It is generally felt that these cascades are predator-driven from top down, and these trophic cascades are not just restricted to land habitat, but the same applies to the marine environment.

Cristina's research focused on the aspen trees, a widely-distributed species in North America, which has been declining in the West for many years. In 1960 a landmark paper by ecologists Marston, Smith and Slobodkin argued that the world is green because predators limit herbivore population (top down control), but not everyone agrees with this. Ecologist Stevan Arnold argues, "The world is green, but that doesn't mean it's edible". Rolf Peterson in his studies on Isle Royale National Park (wolf-moose-balsam first), showed that it is neither one nor the other, but a synergy of both.

So why does biodiversity matter? It can be argued that in some species there are multiple types and therefore it does have an impact if some are lost. Cristina ends her book with a memory of her research in Glacier National Park, Montana, surrounded by aspen trees and with wolf number 763 cradled in her arms. They had just tranquilised the young alpha female to fasten a radio collar around her neck. While they were about to take blood, they noticed her swollen teats which indicated cubs nearby. Cristina felt the fur, listened to her heart and felt a primal connection. In that moment she decided that this wolf was no longer to be a number and she named her Nina, after her mentor Nina Leopold Bradley (Aldo Leopold's daughter). As Nina awoke and the tranquiliser wore off, she rose and

looked back, her amber eyes burning, and then vanished into the shadows.

Four months later in August, they returned to the area and spotted seven wolf cubs. Moving towards the den, located in a stand of aspens, the researchers observed the trophic cascade. Deer bones surround the nearby area, aspens leaves shimmered in the breeze and wolf pups coyly peeked

out from the trees. This meadow substantiates how flora vegetation that was almost extinct has come alive again now that the wolves are back. Christina ends by saying about Nina, "She is a keystone: the shaping force that reforms ecosystems into wholes and her revelations fill me with hope".

If you want to know more about the relationship

between animals and the land they live in it's a worthwhile read with the potential to open many people's hearts, minds and eyes.

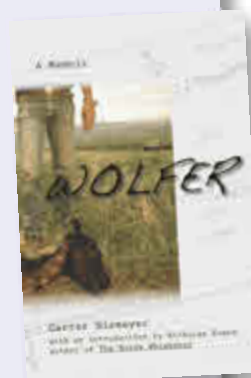
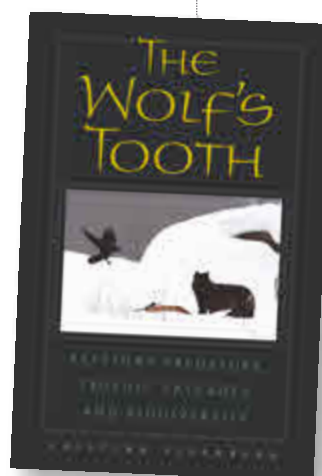
Sandra Benson

The Wolf's Tooth is available from the UKWCT shop: www.ukwolf.org

NEXT EDITION:

Read Julia Bohanna's review of Carter Niemeyer's new book '**Wolfer - A Memoir**'. Carter Niemeyer is the retired US Fish and Wildlife service wolf recovery co-ordinator for Idaho, and is a former trapper and hunter.

Carter will be attending the UK Wolf Conservation Trust open day on 30th May to launch his new book in the UK. He will be giving a talk on the misconceptions about wolves and will be available to sign copies of his new book.



JIM CRUMLEY is one of the UK's finest nature writers with 23 books to his credit. He is thorough in his research, informative, passionate and empathetic to his subjects. He has the ability to draw you into his world.

Instead of opening, as so many books do, with the wolf itself, he begins with the impact that the wolves have on the environment: *"The thing about the mountain after the wolves came, was that it started to change colour... We had only ever seen the red deer there, browsing the land to a grey brown bareness... They forgot how to behave like deer. Then the wolves came back and overnight they remembered. The wolf that howls in our dusk is a painter of mountains."*

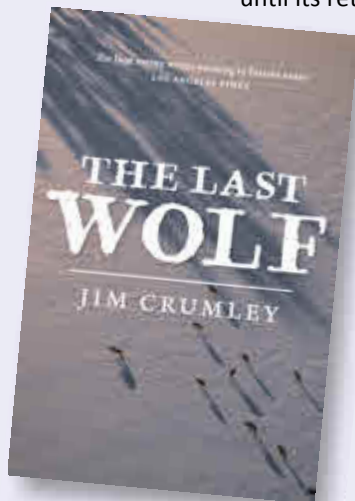
In the book, he unravels myths through the ages, linking modern British misconceptions to the Victorian's love of mysteries and the wild and brave

Scotland. Jim disputes the last wolf in the UK being killed in 1743 and believes from the moment the last wolf died, nature in Scotland and the rest of Britain lurched out of control, and will remain so until its return. Without its

top predators, with the exception of the raptors and a few declining wildcats, the entire eco-system is out of synchronisation.

He argues that there are reliable re-introductions throughout America and Europe and the 1992 European Union Habitats and Species Directive urges its

member countries to consider how to bring the wolf back. He believes that but for the myths, that are hard to shake off, it could be done tomorrow. Woven throughout 'The Last Wolf', Jim lets his imagination roam, dreaming of a wolf living on Rannoch Moor, which he senses is their spiritual home in



THE LAST WOLF

By Jim Crumley

Paperback, 224pp, 19.4 x 12.8cm, RRP £9.99
ISBN 978 184158 8476

Scotland. Having walked Rannoch Moor many times, and having looked in awe at the mountains of Glencoe with its history of the massacre, I also embrace his dream.

A worthwhile read which readdresses the place of the wolf in modern day Scotland.

Sandra Benson

The Last Wolf is available from the UKWCT shop: www.ukwolf.org

Cheng Yan

Painter and Photographer

CHENG YAN is a painter and photographer based in the UK, but travels regularly around the world to find the images for his amazing photographs and paintings. Cheng totally captures the personality of the animals in his photographs, and the environment that his subjects live in. He studied art and literature in China and has gone on to win many national prizes for his work. He takes his inspiration from the landscape and nature of his native homeland, his artwork is influenced by traditional Chinese painting and calligraphy, but he has developed his own unique way of expression in new and contemporary styles.

In his paintings and photography Cheng has a wide range of subject matter from animals and landscapes to flowers. When painting he mainly uses rice paper, ink and quality modern water



colours. In his photography he constructs a composition with a poet's spirit that relates closely to his painting

and uses colour to evoke mood. To find an unusual perspective he will travel for weeks and trek for days up into remote mountains around the world. His website shows some of his travels from China and Nepal to New Zealand and Antarctica. Many of his photographs mimic the proportions of a scroll through the use of a large format panoramic camera.

He exhibits regularly in London, Oxford, New York and Dublin. His work has been published in many countries including China and France, and by Wizard and Genius in Switzerland. His book, published by Search Press, on "Traditional and Contemporary Chinese brush painting", has also been translated into French, Dutch, Russian and Italian.

Cheng's work can be viewed through his website: www.chengyan.net

Sandra Benson

Making Tracks

wolves in the media and the arts

Christina Penescu Wildlife Painter

Christina Penescu was born in Bucharest, Romania, in 1988. Her family relocated to California when Christina was a year old. From early childhood, her passion for art and nature was very apparent. As a child she loved to collect books about animals and spend her time outside in nature. Christina has experimented with a variety of mediums and styles and recently has made the

transition to realistic wildlife art, which she feels has always been her true calling in life. She enjoys painting a wide variety of wildlife subjects, but wild canids, especially wolves, hold a special place in her heart and have been a recurring theme in her art since childhood. Christina has had no formal training and is a self-educated artist.

Christina works in a variety of mediums but she prefers acrylic and scratchboard. Her artwork is very detailed as she aims to bring the viewer an intimate look at nature. She hopes to inspire the world through her depictions of the natural beauty around us. Christina is currently at the beginning of her career as a wildlife fine artist but has



Within Reach

already begun to carve a niche for herself in the field. At the age of just 20 she was accepted as a Signature Member of the world-renowned Artists for Conservation organisation and is also a member of Marwell International Wildlife Art Society, which are both considerable achievements.

In 2010 Christina's painting "Majestic" was named runner-up in the BBC Wildlife Magazine's Artist of the Year Award 2010, and her painting "Apparition" was commended in the International Artists category.

Her work can be viewed through her website: www.wild-visions.com/artwork.html

Sandra Benson



At Ease

ADVERTISEMENT FEATURE

WHITE DOG FUND

Sharing responsibility for predators

THE WHITE DOG FUND gives people in rural areas who are at risk from, or have suffered losses to wolves, bear or lynx, prompt and practical assistance to resolve conflicts; a positive alternative to killing these predators.

HOW DOES IT WORK?

Livestock owners, farmers and beekeepers are provided with a toolbox of conflict resolution measures, including livestock guard dogs, predator-proof fencing and fladry, as well as education and advice.

If satisfied with the results after a trial period, the owners are offered the chance to buy the materials at 50% of cost, and the revenue is returned to the Fund.

HELP SAVE EUROPE'S LARGE CARNIVORES

The White Dog Fund gives everyone, whether you live in a city or in the countryside, the opportunity to share responsibility for the conservation of these species by supporting the people most affected by their presence.

For more information and to make your donation, visit www.wolvesandhumans.org



PLEASE DONATE TODAY. Donate securely online at:
www.wolvesandhumans.org



wolves of the world

news from
around the
world



Grey wolf, John and Karen Hollingsworth, USFWS

The Future of the Grey Wolf



Osteological and Genetic Analysis of Extinct Ezo Wolf (*Canis lupus hattai*) from Hokkaido Island, Japan

The Ezo wolf (*Canis lupus hattai*, Kishida, 1931) is an extinct subspecies that inhabited Hokkaido in Japan until the middle of the Meiji Period. Because there are very few preserved skeletons, no osteological and/or genetic analyses of the Ezo wolf have been conducted. In this study, 20 cranial and eight mandibular characters were measured on Ezo wolf skeletons, and mitochondrial DNA (mtDNA) was analyzed to assess genetic relationships between the Ezo wolf and other wolf lineages, including the Japanese wolf on Honshu. The morphological study showed that the Ezo wolf is larger than the Japanese wolf and similar in size to the grey wolf of the Asian and American Continents. MtDNA control sequences (751 bp) from two Ezo wolves were identical to those from the Canadian grey wolf. The morphological and genetic characters indicate that the ancestor of the Ezo wolf was genetically related to that of the grey wolf in Canada.

www.bioone.org/doi/abs/10.2108/zsj.27.320 or tiny.cc/tbbv9

What to do about the Grey Wolf? It's a debate that's been going on ever since the animal was reintroduced to the Yellowstone National Park in 1995. The rhetoric was turned up a few notches when Idaho's governor came to a decision recently that was met by both cheers and jeers. To environmentalists, the grey wolf is seen as a culling predator or an animal that can help reduce the potential overpopulation of another species. They mainly prey on ungulate or hoofed animal herds such as deer and elk. "Elk and deer actually need species like wolves in order to maintain healthy numbers and a healthy habitat," said Suzanne Stone, Idaho Representative for the Defenders of Wildlife. The wolf was protected under the Federal Endangered Species Act since its reintroduction. However, it was de-listed in 2009 after a federal district judge in Montana ruled that conservation groups, like the Defenders of Wildlife, failed to prove hunting the animal would cause irreparable harm. That also meant there could be a wolf hunt. "Using our sportsmen is one of the ways in which our management plan worked very well last year and we intended it to work very well this year," said Idaho Governor C.L. 'Butch' Otter.

The grey wolf was put back on the list in August by the same Montana judge who took it off, taking the hunt away. The reason: a group of thirteen conservation organizations sued the Department of the Interior saying U.S. Fish and Wildlife made a mistake by allowing Idaho and Montana to have their own wolf management plans while Wyoming was kept under federal control, meaning Wyoming's wolves were still protected. The judge agreed, ruling that all wolves in the Northern Rockies had to be listed or de-listed together, not on a state-by-state basis. Otter says that flies in the face of a state's ability to control what goes

on within its own borders. "Idaho should be considered a state by itself. And when they released the wolves, they didn't release them all in Wyoming or they didn't release them all in Montana. They released them into three separate states," said the Idaho Republican. So, last month, Otter decided to withdraw Idaho Fish and Game as the designated agent for wolf management in the Gem State, turning over control to U.S. Fish and Wildlife. Otter says Idaho has eclipsed the recovery goals originally set down. "Each one of those states should be a designated population. We have far exceeded our population. We reached our population goal in 2002," he said. Suzanne Stone, the Northern Rockies Representative of the Defenders of Wildlife says a wolf recovery cap was never set. "In order for management to transition, there had to be breeding activity between all of the three sub-populations in the region of wolves. The most recent genetic papers show that these numbers were too low," she said. The question remains: where do we go from here? What kind of plan will make everybody happy? The Defenders of Wildlife say leadership is the key. "We need people that are willing to help us bring all of the stakeholders to the table. The ranchers, the hunters, wildlife conservationists to work on resolving the conflicts rather than polarizing them even further," said Stone. Governor Otter, on the other hand, wants the Federal Government to give Idaho the wolf hunt again. He doesn't see that happening because of the threat of even further legal action against the U.S. Department of the Interior. "He's afraid. He's already been warned that if he did that for Montana or Idaho or Wyoming, that they would sue again," said Otter.

www.fox12idaho.com/Global/story.asp?S=13467628 or tiny.cc/thn35

wolves of the world



Anchorage wolf actions normal... ...no cause for fear

writes Vic Van Ballenberghe

I MOVED TO ANCHORAGE in 1974 to work as a moose and wolf biologist for the Department of Fish and Game. In the winter of 1975-1976 another biologist and I investigated two cases where wolves killed dogs in the Eagle River Valley. In 1977 I moved to Fairbanks to be a biologist there. At that time, wolves killed several dogs in the Goldstream Valley on the outskirts of Fairbanks. From time to time, incidents like these have occurred over at least the past 35 years and people have occasionally had close encounters with wolves near our large urban centers. The recent article about wolves apparently killing a dog in Eagle River suggests that wolves are becoming bolder and more used to people, thereby posing more danger than in the past. In my view, these claims are unfounded.

Are human-tolerant wolves apt to injure or kill people? A lot of evidence in Alaska and elsewhere indicates that healthy wild wolves become dangerous only when fed. When unfed wolves are not shot or

trapped they adapt to the presence of people and pose virtually no danger. Examples of this include the wolves in Denali National Park, where no one has been injured by a wolf in the past 90 years. Wolves in several packs there became tolerant of people and vehicles, approaching to within a few yards with little fear. In my fieldwork there I have

There is a long record of wolves co-existing with people in Alaska and there's no reason to believe this cannot continue.

been near wolves dozens of times over the past 30 years and never had a wolf react aggressively. Wildlife authorities in the past recognized that wolves near our urban centers occasionally killed dogs but posed little danger for people. But now they are taking a more aggressive approach to reduce or eliminate wolf packs near Anchorage in response to people's fears. Available data clearly indicate that residents of Anchorage are far more likely to be injured by a bear or a moose than by an unfed wolf. Rather than

an aggressive wolf-killing program, we should teach people how to behave near wolves. As with any large wild animal, people should be cautious and should know some basic rules. Pay attention to your surroundings when in wolf country. Don't run from wolves (or bears) -- stand your ground. Don't jog near wolves with a headset on that prevents hearing

approaching animals. Carry pepper spray. Don't let dogs run loose near wolves and keep them indoors at night. And never feed wolves. Inform others of these measures and encourage them to be cautious. With wolves near our urban centers, we need not let excessive fear dictate our actions.

Vic Van Ballenberghe is a wildlife biologist and former Board of Game member. He lives in Anchorage.

www.adn.com/2010/11/10/1548045/wolf-actions-normal-no-cause-for.html
or tiny.cc/fa39u



ARABIAN WOLF DISTRIBUTION UPDATE FROM SAUDI ARABIA

SINCE THE FIRST Arabian wolf records from northern and central Saudi Arabia, their actual distribution has been sketchy, with wolves never viewed as being very common throughout their range. Being an understudied species, Arabian wolves are probably more widespread than currently documented. Estimated numbers of between 500 and 700 animals have been published.

A review of unpublished reports (grey literature) has confirmed the presence, and persistence, of grey wolves *Canis lupus pallipes* from at least 13 protected or proposed

protected areas in Saudi Arabia indicating the value of synthesising and publishing such data. Although wolves are still declining in Saudi Arabia, various factors including wolves' habituation to humans, scavenging omnivorous behaviour, high reproductive rate, large home ranges, long daily movements and long distance dispersal may contribute to their persistence and even re-establishment in protected areas and other sparsely inhabited locations.

www.canids.org/canidnews/13/Arabian_wolf_in_Saudi_Arabia.pdf or tinyurl.com/2wtowhj

French farmers lose the battle to keep wolves from their door; shepherds fear for livestock as government confirms predator has colonised Pyrenees.

A ferocious pastoral war over the reconquest, or repopulation, of France by large wild animals has entered a new phase - or two. There has been a victory for wild wolves and a partial defeat for government-assisted bears. After a long protest campaign by shepherds, the French government has abandoned a 20-year drive to repopulate the Pyrenees with brown bears. New animals will be introduced only if the surviving bears are 'killed accidentally' or fail to reproduce. The bear breeding programme received a boost this week with the news that two sets of young twin cubs had been spotted in the Pyrenees, bringing the bear population to over 20 for the first time. Meanwhile, it has been confirmed that wolves are now resident in 15 of the 94 departments (counties) of mainland France including, for the first time in a century, the French Pyrenees. Wolves first re-entered France, without human assistance,

from Italy in the early 1990s. Packs roam throughout the French Alps, into parts of the Rhône valley, into the hills of the Jura in eastern France, and over parts of the southern Massif Central. The environment minister, Chantal Jouanno, has confirmed that the grey wolf (*canis lupus*) has also opened a new, southern front in its campaign to recolonise a country from which it was exterminated in 1939. At least one pack has crossed the border from Spain and is ranging over the two easternmost departments in the French Pyrenees. The news will infuriate shepherds' groups and delight environmental activists, who have fought ferocious anti-wolf and pro-wolf political battles in the last 15 years. As part of the 2004 Wolf Plan, the government has subsidised farmers to buy and train large dogs of the patou breed which used to



protect sheep from wolves in France in past centuries. Many shepherds have refused, complaining that the dogs attack tourists and cause more problems than they solve. In some parts of the French Alps, there have even been running battles - and allegations of dog poisoning - between pro- and anti-sheepdog groups of shepherds. There are now estimated to be about 180 wolves living in France. Their arrival in the eastern Pyrenees in the last year is believed to have influenced the government's decision to scale back its 20-year-old programme to reintroduce the brown bear (*ursus arctos*).

Wolf at the door

Conservation groups are saying there is a better way to control the elk population in Rocky Mountain National Park other than shooting the animals. The park uses sharpshooters to cull the park's elk population rather than reintroducing wolves, which the groups want, saying this approach would permanently resolve the park's elk problems. Along with the culling, park officials have erected fences around dwindling aspen groves to stem elk over-browsing.

Conservation groups and the University of Denver (DU) Sturm College of Law Environmental Law Clinic held a rally to welcome back wolves to Colorado on the 17th November 2010. Law professor Michael Harris, who directs the Environmental Law Clinic at DU, will discuss the ongoing Rocky Mountain Park wolf litigation, and there will be two live 'ambassador' wolves at the event. "Devoid of its wolves, Rocky Mountain National Park's elk are sedentary creatures that snack all day, and that uninterrupted feasting leads to ecosystem collapse. The expedient remedy is the most elegant: return the wolf and restore the balance," said Wendy Keefover-Ring of WildEarth Guardians. "Merely culling

elk does not do the trick. Elk need to be continually wary and on the move to prevent over browsing." Represented by DU, WildEarth Guardians challenged the plan by park officials that failed to seriously consider wolf reintroduction as a means of addressing the park's vegetation problems.

"Rocky Mountain National Park and the surrounding public lands could provide over 2.2 million acres of wolf habitat. While the park hosts wolves' favorite prey, elk, in overabundance, their iconic predator, the wolf, is sadly absent," Harris said. Biological studies show that ecologically functional populations of wolves increase ecosystem health and biological diversity. By modulating elk and deer numbers and moving them about, wolves produce an ecological ripple

effect. Biologists call that movement 'the ecology of fear.' Vaughn Baker, Rocky Mountain National Park superintendent, said it wasn't necessarily fear that was used in determining how to control the elk, but science and public input. "In developing the elk and vegetation management plan for the park, we took a hard look at whether reintroducing predators, in particular wolves, was a feasible tool for managing elk in the park," said Baker. "We recognize the vital role predators play in ecosystems. We evaluated factors such as the park's configuration and size, available habitat and movement of elk between the park and adjoining lands and proximity of towns to our boundaries. We also considered policies on those adjoining lands, as these decisions cannot be made in a vacuum". Based on meetings and other communications with recognized wolf experts, the National Park Service and the experts agreed that at this time, without support from neighboring federal, state, and local agencies, the reintroduction of a self-sustaining wolf population would not be feasible. http://www.eptrail.com/ci_16629290

Photo: Ron Wolf.

Merchandise

Gifts & Souvenirs



Five Wolves Fleece Jacket £20.00

A lightweight, 100% polyester fleece.

Features an all-over print, both front and back, zipped front, two side seam pockets and elasticated cuffs. Available in grey (left) and blue.

Sizes:

M 40in/42in (102/107cm),

L 44in/46in (112/117cm),

XL 48in/50in (122/127cm).

Hand wash, 30° max.

Note: Medium size is length 26in (66cm); large and extra large length 27in (69cm).



Three Wolves Hoodie £25.50

Three moonlit wolves feature on this hooded top from the Wild range. The front design is repeated

larger on the back and the wolves also appear on the sleeves. The jacket has a zipped front, two slanted front pockets, drawstring hood and elasticated bottom. Available in sizes Medium (107cm/42in), Large (117cm/46cm) and XLarge (127cm/50in). Machine washable at max 35°C. 100% cotton.

Magnets £3.40 each

Size 3¼in x 2in (8cm x 5.5cm).



Love Looks
Artwork by
Rusty Frentner.



White Wolves
Artwork by
Rusty Frentner



No whining!
Artwork by
Lee Cable

Tee-Shirts £14.00 each

Four stunning tee-shirts from the Wild range, each featuring beautiful screen-printed wolves on the front and the back.

Sizes: Medium (102cm/40in),

Large (112cm/44in),

XLarge (122cm/48in)

100% cotton.

Machine washable at max 35°C.

A - Paw Prints

B - Howling Wolf

C - Midnight Wolf

D - Wolf Kiss



Wolf Glove Puppet £17.50

A large animal head glove puppet with full moving mouth. Soft plush fur. Suitable for 12 months and above. Hand washable. Length 18in (45 cm).



Sitting Wolf £8.00

A hand-crafted Natural Poses soft wolf from Wild Republic. 9in (23cm) high. Wipe clean.



Duma Paw Print £15.00

Original plaster cast from our wolf Duma's paw print. Measures 5½in x 5in (14cm x 12cm).



To view and order these or our other clothing, gifts and souvenirs, visit our online shop at: www.ukwolf.org or call 0118 971 3330.

Please note: all UK orders are subject to a minimum P&P charge of £4.50.

For overseas orders, please contact us.



UKWCT Wolves Tea Towel £5.00

100% cotton tea towel featuring UKWCT wolves Torak, Duma, Latea, Lunca, Mosi, and Mai, taken from original artwork by Onnie. Machine washable at 50°.



'Night Watch' Painting by Numbers £4.99

A wolf stands gazing at you in the starlit forest. The pre-printed board, materials supplied and instructions are all you need to reproduce this lovely picture. Includes 1 numbered drawing on a 22cm x 30cm textured board, 1 brush, 20 acrylic paints and 1 paint organiser.



Wolf Lodge Tapestry Wall Hanging £40.75

High quality jacquard tapestry woven cotton wall hanging producing a true work of art. Supplied with wooden hanging rod. 34in x 26in (86cm x 66cm).

SALE



Wolves Ahead Sign

US-style sign.
38cm x 38cm
Was £5.00 **now £2.00**



Wolf Socks

Made from 75% cotton, 20% nylon and 5% Spandex. Available in beige, hunter green and black in adult sizes 9-11 and 10-13. Machine washable.
Was £6.00 **now £4.50**



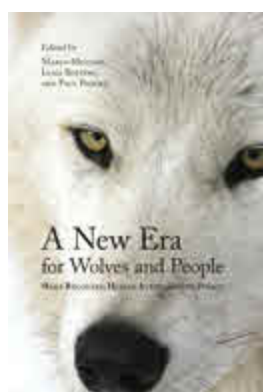
Ambassadors of the Wild DVD

Documentary of the work of the Trust. Running time 40mins, PAL, Region 0.
Was £4.99 **now £2.99**



Wallet

Featuring the UKWCT's Duma in the snow. This leather-effect wallet has 6 credit card pockets, 2 note sections, 1 zipped section and a Velcro closure. 190 x 115mm.
Was £10.00 **now £6.50**



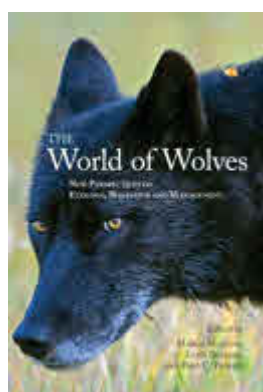
A New Era for Wolves and People: Wolf Recovery, Human Attitudes and Policy

Marco Musiani, Luigi Boitani, Paul C Paquet

A series of papers is presented on aspects of wolf conservation from across the global range of the grey wolf,

documenting the history and current status of wolf populations and the key threat to their existence and expansion: human-wolf conflict. An academic yet very readable book, illustrated with colour photographs by David C Olsen and illustrations by Susan Shimeld. Paperback, 224 pages.

Was £15.99 **now £9.99**



The World of Wolves New Perspectives on Ecology, Behaviour and Management

Edited by Marco Musiani, Luigi Boitani and Paul C Paquet

The second book in the *New Era for Wolves and People* series, *The World of Wolves* offers a fresh

and provocative look at current trends in wolf and wildlife management. Representative case studies from geographically and culturally diverse areas of the world highlight the existing interconnections between wolves, their prey, their ecosystems and people. Paperback, 352pages.

Was £23.50 **now £20.00**



UKWCT A4 Wall Calendar 2011

This wall calendar-planner features all the wolves at the Trust in 2010 and is supplied with a mailing envelope.

Was £8.50 **now £5.99**

Wolves in Russia: *a grey area*



Wolf cubs at the Chisty Les Rehabilitation Center

Most wolf arguments are based on two direct opposites of the spectrum: to kill or not to kill, to conserve or not to conserve. In Russia, the wolf situation is a grey area faceted by history, tradition, finance, politics and ecology.

Vladimir V. Bologov[†] and Jessica A. Wiegand[§] look further.

Pre-1950s, all meat-eating predators from crows to bears were considered superfluous and it was encouraged to kill them for the good of the country to protect livestock and ungulates. Times have changed and many animals such as the bear and lynx now enjoy state protection with an enforced fine or prison sentence for those who hunt them without a licence. Wolves, however, remain the victim of human antipathy and are legally persecuted throughout the country.

A state bounty for every wolf

Under the Soviet Government a state bounty was paid for every wolf killed: R100 (Russian Rubles) per male adult, R150 per female adult, R200 per female adult with pups plus R50 per pup. A wolf was considered a pup before 1st October and an adult after, resulting in many 'maximum return' strategies. It was illegal to not be employed in Soviet times (albeit poorly paid) and the bounty system offered a rich supplement to those who could hunt; a single adult wolf could bring in an extra month's pay. With the breakdown of the USSR, the state bounty system was abolished and it is now the responsibility of the regional administrations to manage their hunting grounds, with variations in system between each region. There is high wolf density in the five regions between Moscow and St Petersburg (Tver, Smolensk, Pskov, Novgorod and Yaroslavl) and each offers a different bounty size. In the Tver region in 2003 a bounty of R1500 of state money was promised per wolf, regardless of age (although this was not paid as the money could not be found). In Yaroslavl, the bounty is raised through a hunting organisation that charges a membership fee to hunters who can then

claim a bounty when a wolf is killed. For every female killed between 15th May and 15th July in Novgorod a bounty of R15000 (over US\$500) is commanded. In Smolensk there is no bounty offered at all, but this does not necessarily mean a lack of hunting.

Education to bring change

The Soviet damage is done and the impression of the malevolent wolf is ingrained in many. Many people still believe that ungulates are the sole property of humans and that therefore wolves should be eliminated accordingly. For all hunters wolves are a trophy animal, their canny elusiveness giving hero status with their death. However, not all attitudes are unequivocal hostility. Some local people live with the knowledge that they share their space with wolves and accept this, the wolves' tracks around the village being the only clue to their presence. But a single attack on livestock will be remembered for decades and the liable wolf (and probably others) hunted and killed. The perceptions of the Russian people are not necessarily separated into categories of young or old, city or country, hunter or not. Unlike science that will

group collectively for convenience regardless of individual personality or preference, the reasons behind opinions must be considered. The local farmer will fear the wolf if his entire livelihood depends on his sheep. The hunter will detest the wolf that remains elusive to his gun. In towns and cities many people may like wolves, be purely disinterested or not even know of their existence in Russia. Children may simply inherit their parents' attitudes. It is, therefore, only education that will begin the shift of attitude from big bad wolf to animal with conservation status. But is this the most sagacious move? Human nature is perverse: the more esteemed and limited in number an animal is, the greater its trophy status and the urge to kill it. The placing of the wolf on the red list may give it greater value and instigate a more burning, if illegal, will to kill. As well as this, the wolves' status as despicable is sometimes used as a means to apply for money by regional environmental administrations from the state, as money is often likely to be granted if asked for wolf control, although it may not ultimately be used for such.

No compensation scheme

Many people ask why the government does not give protection status to the wolf and both abolish the bounty system and charge a licence fee to hunt it; it seems an obvious solution in a world where financial gain will outweigh antipathy. The three main arguments used by authorities to justify wolf 'control' (attacks on livestock, the spreading of rabies and predation on game animals) still stand in Russia as they do elsewhere, with the claims based both on fact and omitted truth. Attacks on livestock do happen and their occurrence cannot be ignored. As there is no compensation system in Russia, no complete countrywide data exists of the frequency although the Russian State Game Department (RSGD) placed costs at US\$1.6m in 2002 (approximately US\$37 per living wolf), with US\$0.5m paid out in bounties (approximately US\$50 per dead wolf). As for rabies, according to data from the Tver Region Sanitary Inspectorate of Epidemics, of the 370 registered cases of people falling ill with rabies during the last 10 years, three were caused by wolves. It is probably predation on game animals which forms the strongest logical argument for the current wolf management system as it is based on financial gain, and is closely linked with the existence of the bounty system. Ungulates are a source of income for the Russian government as hunters pay a licence fee to shoot them. Within Russian estimates, wolf predation on game animals is counted as damage, and was approximated by the RSGD at US\$3.2m in 2002 (approximately US\$71 per living wolf, well above the costs per wolf paid out

in bounties). The wolf bounty system exists to stimulate wolf hunting and therefore protect the ungulates to ensure a constant stream of revenue. Most local people would not pay to hunt wolves as they are a difficult and time-consuming animal to kill; thus with the instigation of a licence fee either no wolves would be killed and consequently the assumption of decreased ungulates may stand, or illegal wolf hunting would occur. Both outcomes would result in lost revenue. Ironically, it is the diminishing number of ungulates partly caused by illegal hunting which probably forms the current most effective method of wolf control through food regulation.

Variable wolf 'problem'

Russia is a vast country and the intensity of the wolf 'problem' varies from place to place. In the frozen, isolated and relatively uninhabited north, wolves roam free and unchecked, and people experience no problems. Mid-Russia holds more people and a few problems, with farmers in south Russia experiencing high numbers of livestock attacks. The problem with the bounty system is that the same price is paid, regardless of place. If the bounty system stays, a positive correlation between bounty and wolf problems could be instigated and maybe in time a balance would arise with few wolves living in areas of high human density and high wolf density in areas with no humans. By eliminating our competitor from 'our' territory, conflict should decrease as wolf attacks on livestock and predation of game animals within human areas became a thing of the past; a ruthless proposal to end the ongoing battle.

One step forward, two steps back

The irony is that in most places in the world, conservationists are desperately running a 'one step forward, two steps back' race to save wolves from extinction. In Russia, they have been persecuted with the aim of complete extermination for over 70 years; they are unprotected by any law, they can be legally killed with poison and a bounty sits on their head; yet still their numbers have effectively remained stable. Obviously, the current system is highly inefficient and the devil's advocate question raises its head: for the wolves' sake, why change anything? At present, the government gets money from ungulate hunting licences, hunters get money from wolf bounties and wolves have a developed survival strategy maintaining their numbers. The issue here is moral: the wolves that are killed suffer; they are snared, beaten, chased and poisoned, sometimes badly wounded, ensuring a slow death. And so the ecological question for wolf survival remains:

should individuals be sacrificed for the sake of the species?

Wolves are low in priority

The question will probably never have to be answered. Russia has been rocked by political extremes in the last century and wolves feature low on the priority scale. In the face of political inaction the lives of wolves depend on the viewpoints of people who have the means to instigate change without altering the law: money. The socio-economic changes within Russia have ensured that a select few of the population have secured massive wealth, and with it, the urge to use it. Land is now available for long-term rent; once leased, what is done with it is not questioned. This can have massive implications for the wolf. Wolf haters can employ rangers to patrol their land and kill every wolf, paying huge private bounties out of inexhaustible funds. Wolf lovers can offer sanctuary. Perhaps it will take near extermination before an inordinate amount of money is spent trying to reintroduce the wolf back into the wild; perhaps they will be hunted to complete extinction. Maybe wolves will be offered asylum by enough land owners to ensure their survival; maybe they will simply be left to struggle on. Without money, little can be done and the outlook is uncertain. Russia is changing and with it, the future of the wolves; their survival depends on the perceptions of the rich.

† vbologov@mail.ru

§ moonberry_rose@yahoo.co.uk

Photos: Vladimir Bologov



Compassionate Conservation



Camilla Fox with Virginia McKenna

Between 1st and 3rd September 2010 the Wildlife Conservation Research Unit (WildCRU) and the Born Free Foundation hosted the Compassionate Conservation Symposium at Lady Margaret Hall, a college closely associated with WildCRU at the University of Oxford. One of the speakers was Camilla Fox.

Camilla is the founder and executive director of Project Coyote in the USA. For over 15 years she has worked to protect wildlife and wild lands in the U.S. and internationally. Camilla has served in leadership positions with the Animal Protection Institute, Fur-Bearer Defenders and Rainforest Action Network, and has spearheaded campaigns aimed at protecting native carnivores, and fostering humane and ecologically-sound solutions to human-wildlife conflicts.

Camilla is the co-author of two books: *Coyotes in Our Midst* and *Cull of the Wild*, and co-producer of the award-winning film, *Cull of the Wild: The Truth Behind Trapping*. She holds a Master's degree in Environmental Studies, with a focus on Wildlife Conservation, Policy, and Ecology, from Prescott College, and a Bachelor's degree from Boston University. In 2006, Camilla received the Humanitarian of the Year Award from the Marin Humane Society and the Christine Stevens Wildlife Award from the Animal Welfare Institute.

Camilla wrote the following blog during her trip to the UK to attend the Symposium:

Blogging from Oxford, England, from the Compassionate Conservation Conference - a ground-breaking International Symposium on animal welfare in conservation practice. The Symposium, sponsored by the Wildlife Conservation Research Unit (WildCRU) and the Born Free Foundation, has brought together scientists and practitioners from a range of disciplines to debate animal welfare issues in conservation, to look for practical outcomes and promote a dialogue between the two disciplines that are often perceived as mutually exclusive.

The Symposium is organized around the following themes:

- Animal welfare in field conservation
- Captive animal welfare and conservation
- Conservation consequences of wildlife rescue, rehabilitation and release
- International trade in live wild animals

Here with me is my colleague, good friend, and Project Coyote Advisory Board member, Dr. Marc Bekoff, who addressed some challenging ethical questions around reintroduction and conservation projects in his keynote address including:

- Should we kill for conservation?
- What trade-offs must be made between ethics and conservation goals?
- Can conservation biologists do good science - save individuals, species, and ecosystems - and also be compassionate?
- What role does sentience play in our decisions?

Representing both Project Coyote and the Animal Welfare Institute, I spoke about predator management in the United States and why we need to move away from indiscriminate killing methods like poisons, snaring, aerial gunning, body-count bounties and contest hunts, and recognize the important role that native carnivores play in healthy ecosystems.

I also discussed an alternative model that was adopted in my home county in Marin Co, California - known as the



Coyote, by Camilla H. Fox/ProjectCoyote.org

Marin County Livestock and Wildlife Protection Program - after controversy erupted when local citizens learned that Marin was going to be one of three northern California counties to test the deadly poison Compound 1080 on coyotes by the federal government. The local Marin initiative - unique in its kind - assists ranchers with implementing non-lethal animal husbandry techniques instead of killing native carnivores with federal trappers through the U.S. Department of Agriculture's 'Wildlife Services' program.

It is refreshing to see these challenging issues of how we balance conservation with the needs and lives of individual animals debated in an international forum, with some of the brightest thinkers and visionaries of our time. It is my hope that out of this symposium there will be more collaboration between conservationists and animal welfare advocates where common ground and goals can be identified.

Read Camilla's blog on the Huffington Post website at: tiny.cc/oczcp

www.projectcoyote.org/index.html
www.compassionateconservation.org/



Forthcoming events at the UK Wolf Conservation Trust

Children's Wolf Walks

23rd February, 11am to 1pm and 2pm to 4pm
24th February, 13th April & 1st June, 11am-1pm

Take a walk with the UKWCT wolves.
This event includes a short talk and tour of the centre.
£13 per person, 6 years + Booking essential; limited parent spaces.



Winter Wolfy Treats

24th February, 2pm to 4pm

Take a walk with the wolves then spend the afternoon making some special treats for the wolves.
£15 per person, 6 years + Booking essential; limited parent spaces

Children's Wolf Keeper Days

21st April and 2nd June, 10am-3pm

- Come dressed to get mucky and see what the wolves and their keepers get up to during the day.
 - Take over the job of the Wolf Keeper looking after the wolves. Don't be fooled - it's hard work but lots of fun.
- Spaces are limited to make the day really special, so please book early. **£30 per person, 10 years +**

Eggstatic Spectacular!

Wolf Walk and Easter Egg Hunt 20th April, 11am-1pm

Have you ever wondered what the wolves love to do at Easter? Well, they do enjoy hunting for eggs. Come for a walk with the wolves and then decorate some eggs for their very own wolfy Easter Egg Hunt - the wolves love it and so will you! Please book early for this popular event.
Cost £15 per person, 6 years +



Creative Writing Workshop with Michelle Paver

Tuesday, 12th April, 1pm - 5pm

Come and join award-winning author Michelle Paver for a creative writing workshop. Find out how Michelle researches her work. She will then guide you through writing a short piece of your own and finish the day by reviewing some of the work.
Includes a wolf walk.

Book early as this event is very popular. **£15 per person, 8 years +**

Special Wolf Walks for Adults



Valentine Walks

Sunday, 13th February, 10am and 1.30pm

What could be a more romantic gift for an animal lover than to walk with wolves? Spend your special day at the UK Wolf Conservation Trust in the company of one of the world's most family-oriented species. It's breeding season for the wolves as well and they are very loyal and attentive to their mates at this special time of the year for lovers. **£75 for two people.** Includes a gift.



Mothering Sunday Walk

Sunday, 3rd April, 10am

Looking for an extra-special gift for an extra-special mum? How about a wolf walk? The event includes a photo opportunity with the wolves and a gift for Mum. **£75 for two people.** Open to children age 12 years plus; £10 extra per additional child, subject to availability.



Mobility Walk

Wednesday,
8th June, 2pm

For those unable to come on our full two-hour walks due to mobility issues, we offer special mobility walks at the Trust. The event starts with a PowerPoint presentation in the Education Centre and then a short walk around the site, with the chance to meet wolves up close. There is a large area of graveled path around the enclosures which allows good viewing of all the wolves. The wolves are happy around wheelchairs. **£75 for two people.**

Fathers' Day Walk

Sunday, 20th June, 10am



Stuck for that special gift for a Dad who has everything? Why not get him the ultimate gift - walking with wolves? The event includes a photo opportunity with the wolves and a gift for Dad. **£75 for two people.** Open to children age 12 years plus; £10 extra per additional child, subject to availability.

Booking essential. All walks come with a year's membership to the Trust.

Further details at www.ukwolf.org or to book call 0118 971 3330

Forthcoming events at the UK Wolf Conservation Trust

UKWCT Wolf Centre Open Days

Bank Holiday Mondays 30th May & 29th August, 11am-5pm



- Look around the Wolf Trust
- Photography sessions from the platform and the positioned camera lens holes cut into the enclosure fence
- Ask the experts about living with wolves
- Listen to the wolves howling
- Other animal exhibits
- Children's activities available
- Nature Trail
- Pond Dipping
- Birds of prey
- Bouncy Castle
- Hug a Husky
- Refreshments
- Picnic tables available

£7 adults and non-members

£5 members and children under 12

Booking not required. Sorry, no dogs.

Pastel Workshop

with Vic Bearcroft

Friday, 1st April

Join award-winning British wildlife artist

Vic Bearcroft on this special pastel workshop, where you will learn how to paint wolves in pastel on velour paper. You will be painting one of the UKWCT's own wolves from a selected reference photograph, in sight of the wolves themselves. The workshop is suitable for artists of all abilities. You will also have the chance to meet a wolf at very close quarters, feel the fur and take some fantastic reference photos.

For further information and booking, please email

Vic Bearcroft at vicbearcroft@tiscali.co.uk or

telephone 01636 651699

www.vicbearcroft.co.uk

Photography Day

Sunday 20th February 9.30am-4.30pm

Held in winter, when our wolves look their most charismatic, our exciting photography workshop starts with a brief presentation setting the scene, informing you about wolves in general and the history of our wolf centre.

After a break, there is a short walk to the photography area, where you'll be able to take pictures of our wolves.

Open to photographers of all abilities and standards of equipment.

Participants must be 18 years or older.

Spaces are limited so book early. **£75 per person**

Predator to Pet Workshops

10am, Saturdays 7th May, 2nd July and 15th October



Join us for an exciting and fast-moving workshop developed in association with Wolf Park of Indiana. You will:

- examine the genetic evidence of the relationship between dogs and wolves
- look at domestication vs socialisation
- learn about the taxonomy of canids
- walk with ambassador wolves, seeing firsthand the ancestor of today's dogs
- receive a gift as a memento of the day

This hands-on workshop will chart the domestication of dogs from their wild roots to the present day... and much more besides.

A walk with an ambassador wolf is included, allowing you to see first-hand the wild ancestor of today's dogs. You'll also receive a gift as a memento of the day.

£50 per person - places limited - booking essential

Wolf Keeper Experience Days

5th May, 19th May, 26th May, 9th June and 23rd June; 10am to 4pm.

If you - or someone you know - is a wolf lover, then this is a unique experience: during the day you will see behind the scenes at the wolf trust and shadow the keeper in tasks such as cleaning out the wolf enclosures, preparing and giving medication and get involved in our wolf enrichment programme. There is a maximum of 6 people on the day.

All participants receive a souvenir certificate at the end of the day. Please bring your own packed lunch. Tea, coffee & squash available.

£80 per person. Age 16 or over.

Please ensure you have up-to-date tetanus immunisation.

Friday Night is Howl Night!



**Cost £10 per person
Booking required**

11th February, 25th March at 6.30pm
20th May, 17th June, 15th July at 7.00pm

If you've ever dreamed of standing near a wolf and hearing it howl, this is a once in a lifetime opportunity to feel your backbone tingle and your ears vibrate with the sound. The evening will start with a presentation on wolf communication; you will then go on a tour of the centre and have the opportunity to let out a howl and see if the wolves respond! You will also see them feeding.

Night is the best time to see the wolves as they are at their most active. (Don't forget to dress up warmly for an evening under the stars).



DATES FOR YOUR DIARY

**WORLD ANIMAL DAY - SUNDAY, 2ND OCTOBER
WOLF AWARENESS WEEK - 16TH - 23RD OCTOBER**

Further details at www.ukwolf.org or to book call 0118 971 3330